Maritime safety and security



AUTONOMOUS AND INTELLIGENT DRONE

ASEMAR: An intelligent autonomous drone

The aim of the ASEMAR project, officially recognised in December 2005, was to create an intelligent autonomous drone designed for maritime surveillance and for locating submerged objects such as black boxes, wrecks and lost cargo.

Six partners, comprising two industrials (Thales and ECA) and four HE institution research labs (ENSTA Bretagne, Ecole Navale, ISEN and UBO), pooled their skills to realise the project.

The project developed an AUV system featuring automatic embedded detection and classification and capable of carrying out sea-bed surveillance missions involving systematic sweeps and, where necessary, additional sweeps of contact areas and gasp in coverage to improve performace. The underwater vehicle has the embedded capacity to generate events during the mission, making it automatically responsive and thus able to achieve its surveillance mission goals as effectively as possible. The ambitious, global performance requirements could only be fulfilled by highly innovative functions which demanded an initial advanced research phase. Sea trials confirmed the system's capabilities and demonstrated that it met all the stipulated targets.

The current market offers no other system of this type, today's UUVs being content to map and record data, which then have to be processed at the end of the mission. The ASEMAR system, as a result of the levels of autonomy and reactivity it offers, enables the partners to distinguish themselves from market competitors.

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Crédits photos



Partners

Companies

Thales DMS, Brest [Project Developer] ECA Group, Brest

Research centers

École Navale/IRENav, Brest ENSTA Bretagne, Brest ISEN, Brest UBO/Amure, Brest

Funders

- Fonds Unique Interministériel
- Conseil régional de Bretagne
- Conseil départemental du Finistère
- Brest métropole

Labelisation

16/12/2005

Overall budget

14 933 K€